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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,345	04/15/2004	Shannon V. Davidson	064747.1011	8660

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EXAMINER	
DAFTUAR, SAKET K	

ART UNIT	PAPER NUMBER
2151	

NOTIFICATION DATE	DELIVERY MODE
07/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/825,345	DAVIDSON ET AL.	
	Examiner	Art Unit	
	SAKET K. DAFTUAR	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/01/05---03/26/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-45 are presented for the examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 16, and 31 recites the limitation "the reset node". There is insufficient antecedent basis for this limitation in the claim.

Claims 2-15, 17-30 and 32-45 depend upon claims 1, 16, and 31, respectively. Therefore, there is insufficient antecedent basis for the same limitation in the claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 16-30 recites software for computer cluster virtualization operable

to select distributed application... Claims are directed to software and therefore, claims 16-30 lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. Similarly, claims 31-45 recite a computer system claims of software claims 16-30 and therefore, claims 31-45 also lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209

USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brownell et al. US Patent Number 7,231,430 B2 (hereinafter Brownell) and Aziz et al. US Patent Number 6,597,956 B1 (hereinafter Aziz).

As per claim 1, Brownell discloses selecting a distributed application (see column 2, lines 47-62); dynamically selecting one of a plurality of nodes(see column 2, line 47- column 3, line 8); resetting a boot image of the selected node based, at least in part, the boot image compatible with the distributed application (see column 2, line 47- column 3, line 26); and associating a virtual disk image with the selected node based (see column 2, line 47- column 3, line 26), at least in part; and executing at least a portion of the distributed application on the reset node using the associated virtual disk image (see column 2, line 47- column 3, line 26).

However, Brownell is silent about policy associated with the distributed application.

Aziz teaches that policy associated with the distributed application for the plurality of processors and storage disks in distributed network (see column 11, lines 7-15; column 19, line 44 – column 21, line 17, see figures 14-16).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Aziz with Brownell to provide a computer platform includes a plurality of computer processors connected to a communication network that provides an highly scalable controlling and managing storage devices coupled to storage networks or switches and provides an highly scalable computing system that supports creation of multiple segregated processing nodes.

As per claim 2, Brownell discloses comparing the subset of nodes with the retrieved policy (see column 2, line 47- column 3, line 26, column 8, lines 34-51 locally configured IP address containing MAC address); and selecting one of a plurality of compatible boot images based on the comparison(see column 2, line 47- column 3, line 26, column 8, lines 34-51 locally configured IP address containing MAC address, column 21, lines 3-27).

As per claim 3, Brownell discloses determining a count of nodes in the subset (see column 2, line 47- column 3, line 26, column 8, lines 34-51, column 14, lines 39-49); and selecting the boot image based on a link in the policy and

the count of nodes (see column 2, line 47- column 3, line 26, column 8, lines 34-51, column 14, lines 39-49).

As per claim 4, Brownell discloses the subset of nodes associated with one of the plurality of compatible boot images (see column 2, line 47- column 3, line 26, column 21, lines 3-27).

As per claim 5, Brownell discloses determining if one or more of the plurality of nodes is unutilized by a second distributed application (see column 7,line 29 – column 8, line 51; internal nodes utilization is unavailable to external node); and in response to at least one of the nodes being unutilized, selecting one of the unutilized nodes(see column 7,line 29 – column 8, line 51).

As per claim 6, Brownell compatibility of the selected node with the selected distributed application (see column 7,line 29 – column 8, line 51) and Aziz teaches the policy (see column 11, lines 7-15; column 19, line 44 – column 21, line 17).

As per claim 7, Brownell discloses automatically shutting down the selected node (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28);resetting the boot image of the selected node (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28);and restarting the selected node using the reset boot image (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28).

As per claim 8, Brownell discloses terminating any processes associated with the second distributed application prior to shutting down the node (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28).

As per claim 9, Brownell discloses a plurality of links to boot images, each link associated with one of a count of nodes compatible with the distributed application (see column 2, line 47- column 3, line 26, column 5, line 56 – column 6 line 35, column 9, line 54 – column 10,line 28).

As per claim 10, Brownell discloses one or more parameters for determining the timing of the selection of the node (column 27, lines 30-32) .

As per claim 11, Brownell discloses a remote boot image stored in a Storage Area Network (SAN) (column 2, line 45 – column 3, line 26).

As per claim 12, Brownell discloses the method of claim 1, the node associated with a first boot image prior to the reset and associated with a second boot image from the reset, the first and second boot image differing in at least one of the following characteristics: operating system; system configuration (column 3, lines 50-67); and distributed application parameters.

As per claim 13, Brownell discloses determining that one of the plurality of nodes failed, the failed node executing at least a portion of the selected distributed application (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28); and wherein selecting one of the plurality of nodes comprises selecting one of the remaining nodes in response to

the failure (see column 2, line 47- column 3, line 26, column 6, lines 18-35, column 9, line 54 – column 10,line 28).

As per claim 14, Brownell discloses the same processor architecture (column 5, lines 29-34).

As per claim 15, Brownell discloses selecting one of the plurality of nodes at a predetermined time column 27, lines 30-32).

As per claims 16-30 and 31-45, they do not teach or further definer over the limitation as recited in claims 1-15, Brownell discloses therefore, claims 16-45 are rejected under same scope as discussed in claims 1-15, supra.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See accompanying PTO 892 form.

a. Merging Scalable Nodes into Single-Partition Merged System Using Service Processors of Nodes by Zaharias US Patent Number 7,379,983 B2.

b. Mechanism for Controlling Boot Decisions from a Network Policy Directory Based on Client Profile Information by Backman et al. US Patent Number 7,127,597 B2.

8. A shortened statutory period for reply to this non-final action is set to expire **THREE MONTHS** from the mailing date of this action. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (See 35 U.S.C 133, M.P.E.P 710.02,71002 (b)).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saket K. Daftuar whose telephone number is 571-272-8363. The examiner can normally be reached on 8:30am-5:00pm M-W.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. D./
Examiner, Art Unit 2151

/John Follansbee/
Supervisory Patent Examiner, Art Unit 2151